

---

---

# Sustainability Values Diagnostic

Leah Triplett, Will Miksovic, Andy Paulonis,  
Mary Haninger, Kaleb Jubar

---

---

CS 4624 Multimedia, Hypertext, and Information Access  
Dr. Fox  
Virginia Tech, Blacksburg VA 24061  
5/2/19

# Outline

- Project Recap
- Recent Progress
- Implementation
- Demo
- User Testing Results
- Additional User Testing
- Final Stretch
- Lessons Learned
- Acknowledgements



## Sustainability Values

A Diagnostic Exercise by Center for Leadership in Global Sustainability

# Project Recap

- Website to host a survey created by Dr. Hull
  - Generate a report that defines the user's sustainability values
  - Allow users to download/re-access results and administrator to download all data



Sustainability Values

A Diagnostic Exercise by Center for Leadership in Global Sustainability

[Home](#) [More Information](#) [Contact Us](#)

To take the sustainability values diagnostic survey, select **TAKE SURVEY** below.

If you have already taken the survey and would like to re-access your report, select **VIEW RESULTS** below.

TAKE SURVEY

VIEW RESULTS

Why this subject is important:

Most sustainability decisions are hotly contested and intensely political because they involve deeply held, highly personal, and often hidden values.

Values define who we are, they reveal biases and assumptions, and they guide decisions. Failure to navigate value differences produces confusion, negotiation train wrecks, and loss of trust.

Many people have not critically examined their values about core sustainability topics. As a result, they struggle to communicate with others and they are less effective at listening, navigating differences, and discovering synergies.

What this survey will do:

This diagnostic examines values, myths, and biases embedded and hidden in most sustainability efforts. It is intended to help sustainability professionals understand themselves, become better listeners, build productive collaborative efforts, and manage conflict.

# Recent Progress

- User testing
  - With client, Dr. Hull
  - With undergraduate students in Dr. Hull's class
- Updates/Changes
- Group Functionality
- VTURCS

## Sustainability Values

### A Diagnostic

Anonymity and confidentiality will be protected.

Do you have a group code?

☒ Yes ☐ No

Group Code:

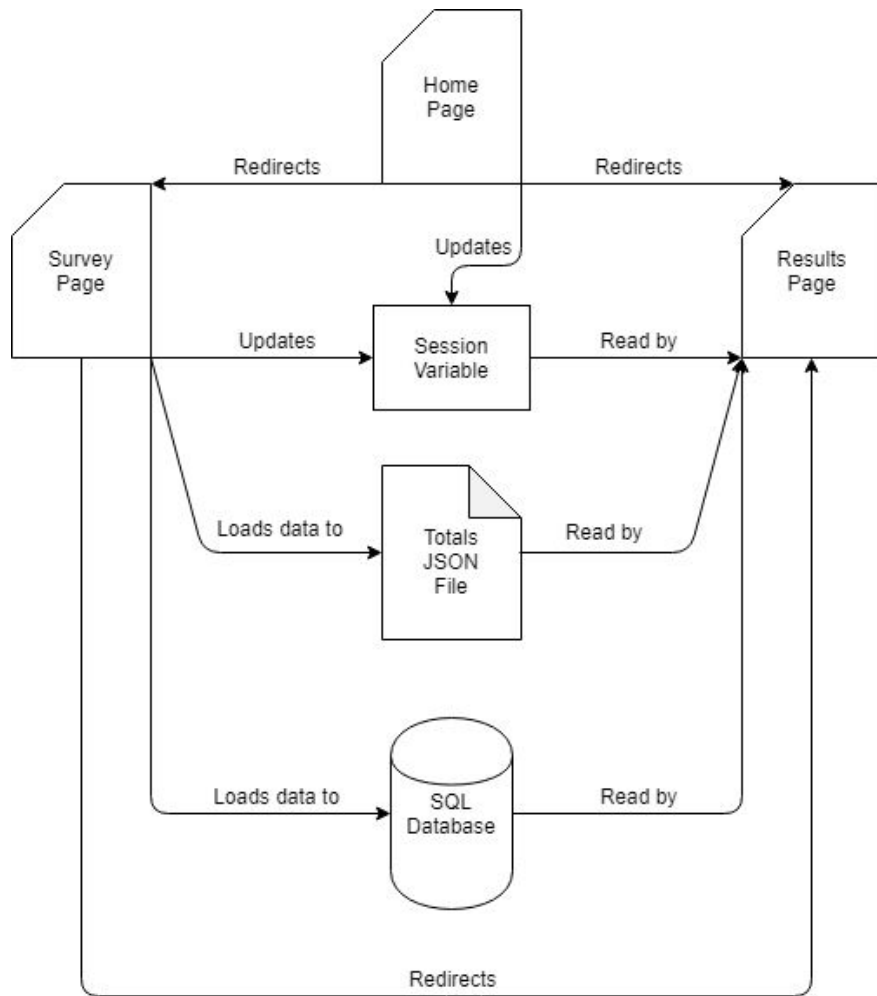
Question 1: Assume the total global budget for worldwide sustainable development efforts is \$100, that you are the person to allocate it, and that you must allocate all of it. Assume your allocations will determine the outcomes that get emphasized by sustainable development efforts. Allocate ALL \$100 among the following 6 choices.

Resources: Money for programs that promote & sustain renewable & non-renewable resource inputs into the economy, including energy, biomaterials, water, fish, minerals, oil, and soil.

\$

# Implementation

- PythonAnywhere
  - Flask
  - SQLAlchemy
- MySQL database



# Demo



## Sustainability Values

A Diagnostic Exercise by Center for Leadership in Global Sustainability

### Functionality

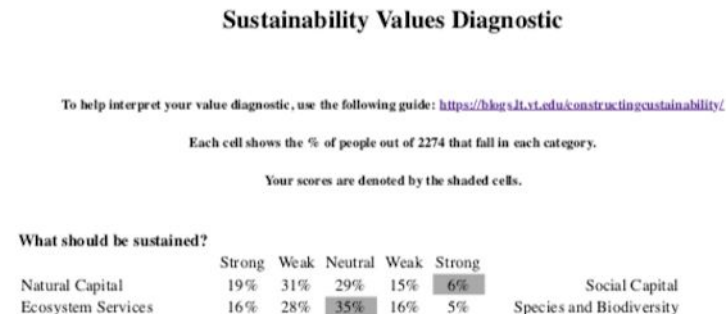
- Survey
  - Individual
  - Group
- Instant report
- Download/print results
- Re-access results
- Administrator portal
  - Data download

<https://www.sustainabilityvalues.com/>

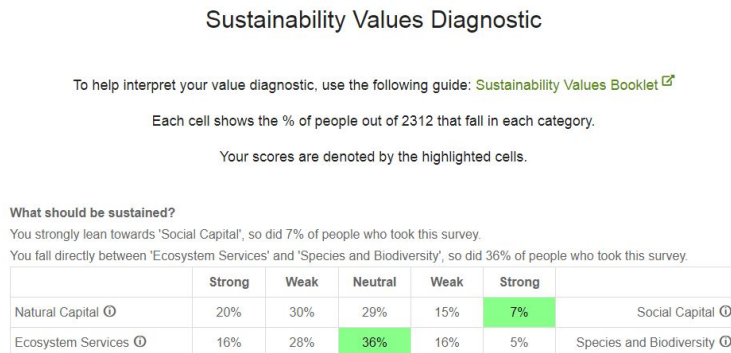
# User Testing Results

- Bug in back-end calculations
- Result representation was unclear
  - Added clarification sentences
- Terms required more explanation
  - Added hover explanations
- Small aesthetic changes
  - Changed text size
  - Added color

Before:

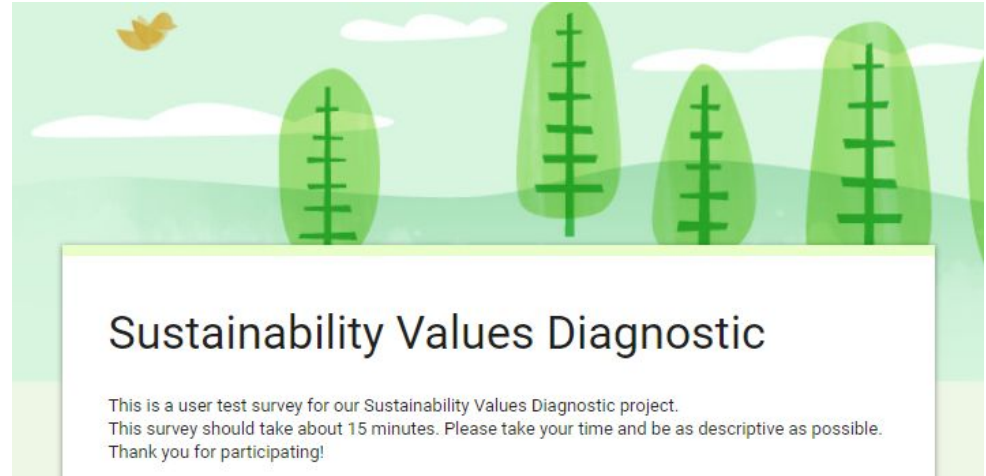


After:



# Additional User Testing

- For our final user testing we have released a survey
- Our survey consists of tasks and subsequent questions for the user
- This will be more efficient and will allow us to reach a wider audience



<https://forms.gle/iz8kZWfp2aF1Bow19>



# Final Stretch

## Sprint 1

- ✓ Setup
- ✓ Initial Design
- ✓ Upload

## Sprint 2

- ✓ Implement Database
- ✓ Modify HTML
- ✓ Setup In-House Survey

## Sprint 3 (Spring Break)

- ✓ Load Existing Data
- ✓ Integration of Front-End and Back-End

## Sprint 4

- ✓ Report Page
- ✓ Survey Result Analysis
- ✓ Admin Access

## Sprint 5

- ✓ User Testing
- ✓ Re-accessible User Results Functionality

## Sprint 6

- ✓ Update Group Functionality
- ✗ ~~Visualization~~

## Sprint 7

- ❑ Finalize
- ❑ Document
- ❑ Review with Client

# Lessons Learned

- Don't trust people to be honest signing up for extra credit user testing
- Have user testing earlier on to find bugs quicker
- Assess difficulty and feasibility of stretch goals early on
- However, our stretch goals could be used for future projects
  - Additional visualizations
  - Edit functionality
  - Easier credential change

# Acknowledgements

- Client
  - Dr. Bruce Hull, Dept. of Forest Resources and Environmental Conservation
- Last year's Sustainability Values team effort
- The Center for Leadership in Global Sustainability
  - <http://cligs.vt.edu/>



---

---

# Questions?

— Comments or Suggestions? —

---

---